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# **New England Association of Environmental Biologists**

## 31st Annual Conference

Grand Summit Hotel and Conference Center Mount Snow, West Dover, Vermont

# **Agenda**

March 14-16, 2007





NEAEB would like to thank the following cosponsors for their generous support:





























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# NEAEB 2007 Agenda

## Wednesday

#### 10:00 AM - 12:00 PM

#### **Merrit-Cummins Taxonomic Key Update**

Raponda Central

Overview of proposed changes to E.P.T. chapters for the 4th ed. of Merritt and Cummins

Steven K. Burian

Southern Connecticut State

University

## 12:00 PM - 01:00 PM

Lunch (on your own)

υı	01:00 PM - 03:00 PM		
Cla	ssification Approaches for Waters	<b>Deerfield South</b> <i>Greg Hellyer, Moderator</i>	
1)	Using BioSim2 to calculate statistically-valid sectors of indicator taxa	Carlos F. A. Pinkham Norwich University	
2)	The Connecticut Hydrologic Stressor Index for Stream Flow Classification	Chris Bellucci CT DEP	
3)	The Benefits of EPA Level IV Ecoregional Mapping in Maine(and the rest of New England?)	James Omernik USGS and USEPA-ORD	
4)	Discussion of the Benefits of Level IV Ecoregional Mapping to New England States	Greg Hellyer USEPA	
We	etland and Lake Assessments 1	<b>Somerset West</b> <i>Kellie Merrell, Moderator</i>	
1)	Prediction of Four-toed Salamander presence in shoreline microhabitat and wetlands in Maine		
	Prediction of Four-toed Salamander presence in shoreline microhabitat and	Kellie Merrell, Moderator  Rebecca Chalmers  Vermont Department of	
1)	Prediction of Four-toed Salamander presence in shoreline microhabitat and wetlands in Maine	Rebecca Chalmers Vermont Department of Environmental Conservation Jason T. Bried	

01:00 PM - 03:00 PM	(continued from previous page)
Norkshop - Periphyton	Deerfield North
Goal of the workshop is to facilitate and encourage the use of bioassesments.	periphyton in Julia Kay Christensen Eichman
Norkshop - Macroinvertebrate Taxonomy	Raponda Centra
Goal of the workshop is to facilitate the accurate identification	n of Steve Burian and Don Chandler - Instructors

03:20 PM - 05:00 PM			
Mercury and Toxic Algae	<b>Deerfield South</b> <i>Neil Kamman, Moderator</i>		
1) Mercury concentrations in crayfish collected from New York streams, 1989-2001	Stephanie L. Johnson SUNY-ESF		
2) Mercury in Stream Water and Biota in the Upper Hudson River Basin, New York	Karen Riva-Murray U.S. Geological Survey		
3) Contrasting algal bloom cycles in two shallow mesotrophic lakes: interactions between abiotic and biotic control	Tara Trinko University of Maine		
Wetland and Lake Assessments 2	Somerset West Jim Kellogg, Moderator		
1) Results of the 2005 Vermont acid lake biomonitoring program	Heather Pembrook  State of Vermont		
2) Statistically Valid Surveys of the Nation's Waters: The National Wetland Condition Assessment	Michael Scozzafava USEPA, Office of Water, Wetlands Division		
3) Massachusetts' First Desalination Facility: Monitoring and Mitigating for Potential Impacts	Tom Touchet Metcalf & Eddy, Inc.		
Workshop - Macroinvertebrate Taxonomy (cont.)	Raponda Central		

6) Conversations on the Commons

#### Wednesday 05:00 PM - 06:00 PM **Business Meeting Deerfield North Business Meeting** Doug Burnham - Presiding **Thursday** 08:00 AM - 10:20 AM **Technical Plenary** Somerset West Neil Kamman, Moderator 1) The U.S. EPA Tiered Aquatic Life Use Initiative: Progress to Date with Chris Yoder State Program Development & Implementation Midwest Biodiversity Institute 2) Developing lake-specific nutrient criteria: integrating predictive modeling Patricia A. Soranno with biological response gradients Michigan State Univ. 3) River Management Trends and Issues Jim MacBroom Milone & MacBroom Inc 09:00 AM - 12:00 PM **NABS** Examination **Hospitality Suite NABS** Examination Kelly Nolan - Examination Proctor 10:20 AM - 12:00 PM Poster Plenary - Bioassessment Somerset Central/East 1) Development of target fish communities for Massachusetts river basins Michael Kashiwagi MA Division of Fisheries and Wildlife 2) Urban Stream Ecology: Impact of Wastewater Treatment Plant Chlorine Nicole A. Hoyceanyls Disinfection of Stream Fish Species Diversity and Water Quality Bridgewater State College 3) Assessment of the physical impacts of precipitate on aquatic biota **Brian Duffy** VTDEC Biomonitoring Program 4) Interstate assessment: Cross-calibration of the Biological Condition Ben Jessup Gradient among state monitoring programs in New England Tetra Tech 5) Long-Term Trends in Water Chemistry of New York State Rivers and Kathie Dello Streams **NYSDEC**

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Amos Baehr

UVM Gund Institute for Ecological Economics

10	:20 AM — 12:00 PM (con	tinued from previous page)
Po	ster Plenary - Bioassessment	Somerset Central/East
7)	Persistence of dragonfly exuviae on vegetation and rock substrates	Maria Aliberti URI Dept. Plant Sci. & Entomology
8)	Quantitative Study of the Freshwater Mussel Community Downstream of the Surry Mountain Flood Control Dam on the Ashuelot River, New Hampshire	Ethan Nedeau Biodrawversity
9)	Quality assurance invertebrate identification in a state monitoring program and the resolution of taxonomic disagreements.	Larry Abele <i>NYSDEC</i>
10)	Fluctuating asymmetry in Calopteryx sp. : a stress indicator for wetland streams in Southeastern Massachusetts	K.D. Curry  Bridgewater State College
11)	Species Identification of New England Freshwater Calanoid and Cyclopoid Copepods Using Genetic Barcodes	Elisha Allan University of NH
12)	Lotic Scene Investigation <sup>TM</sup> (LSI) program for higher education: Combining intensive student training with professional stream biomonitoring assessments	Kelly Nolan Independent consultant
13)	Identifying high quality aquatic resources in an urbanized landscape	Alicia J. Norris Massachusetts Division of Fisheries and Wildlife
14)	A New Benthic Screening Approach for Field Assessment of Connecticut's Wadeable Streams.	Guy Hoffman CT DEP
15)	Origin of New England's Fish Species	Rich Langdon VTDEC
Pos	ster Plenary - Geomorphology	Somerset Central/East
1)	River Flume Demonstration	Staci Pomeroy VTDEC River Management Program
2)	Managing Streams Toward Equilibrium Conditions: A Case Study of the Vermont River Management Program	Kari Dolan Vermont River Management Program
3)	Stream Geomorphic Assessments - Tyler Branch and Trout River Watersheds	Adam Robtoy The Johnson Company, Inc.
4)	Linking urban land use to stream geomorphology and biotic integrity in the Lake Champlain Basin, Vermont	Evan P. Fitzgerald University of Vermont
5)	Evolution of the MesoHABSIM approach: 2001-2007	Jeffrey D. Legros Northeast Instream Habitat Program, UMASS

10	10:20 AM - 12:00 PM (continued from previous page)		
Po	ster Plenary - Geomorphology	Somerset Central/East	
6)	In Stream Pond Removal - An Effective Water Quality Management Tool	Jeff Nelson Pioneer Environmental Associates, LLC.	
Poster Plenary - Nutrients		Somerset Central/East	
1)	Maine Draft Nutrient Criteria	Tom Danielson  Maine Department of Environmental Protection	
2)	Development of nutrient criteria to protect aquatic life and aesthetic uses in Vermont lakes and wadeable streams	Neil Kamman VTDEC Lakes Management / Protection Program	
3)	Large River Nutrient Criteria in New York State	Alexander J. Smith NYSDEC and NEIWPCC	
4)	Paleolimnology of Shelburne Pond, Vermont	Andrea Lini University of VT	
5)	Trophic History of Lake Champlain since European Settlement: A paleolimnological study	Andrea Lini University of VT	
6)	Comparison of Chlorophyll Collection and Analysis Methods	Travis Godkin <i>USEPA</i>	
7)	Reaching out with zooplankton: Using An Image Based Key to the Zooplankton of the Northeast (USA) and other web-based tools to extend taxonomy	Sonya Carlson Univ. of NH	
8)	Cyanobacteria Bloom on the Charles River	Joan Beskenis Mass Dept. Env. Protection	
9)	Investigating Phosphorus Internal Loading in Maine Lakes using 31P Nuclear Magnetic Resonance (NMR)	Bjorn Lake University of Maine	
10)	Cyanobacterial monitoring in Vermont	Angela Shambaugh VTDEC Lakes Management / Protection Program	
11)	The development of a remote sensing technique to monitor New England Lakes	Shane Bradt UNH Cooperative Extension	
12)	Mapping Cyanobacteria Blooms in Lake Champlain at Multiple Scales: QuickBird and MERIS Satellite Data	Sarah Wheeler VTDEC Lakes Management / Protection Program	

Trivia with Top Hat Entertainment

**Thursday** 

# 12:00 PM - 01:15 PM Lunch **Deerfield North/South** 01:15 PM - 03:30 PM Plenary: It's Too Late to Be a Pessimist **Somerset West** Kellie Merrell, Moderator 1) Mediated Modeling as a tool to Integrate Science and Democracy Marjan van den Belt Mediated Modeling Partners LLC 2) Science and Anti-Science in America: Belief and Knowing Elizabeth Sherman Bennington College 3) Legal Opportunites: Pushing the Boundaries David Mears Vermont Law School 03:30 PM - 06:00 PM World Café: Our Desired Aquatic Environments **Somerset Central/East** Kellie Merrell and Doug Burnham, Moderators Legacy and Next Generation NEAEBers will create a shared vision of a Kellie Merrell - Cafe Facilitator desirable future for the aquatic environments of New England and New York. 20 aquatic problems, 150 minds, 3 rounds of discussions, unlimited solutions! 06:45 PM - 08:30 PM **Deerfield North/South Banquet** 08:30 PM - 10:30 PM

**Deerfield North/South** 

	Neil Kamman, Moderator
<ol> <li>Lessons Learned from Two Volunteer Watershed Water Quality M Programs in the Champlain Valley, Vermont</li> </ol>	onitoring Bill Hoadley  LaPlatte River Watershed  Partnership
2) Water Quality of Essex (VT) Streams: Sediment, Nutrient and Salt	Pollution Ashley Wright  Essex Waterways Association and  UVM
3) Meeting the Challenges of Volunteer Monitoring	Linda Green Univ. of Rhode Island Watershed Watch
Panel Discussion - Protection of Biologically High Quality Wa	aters Raponda West Marie Caduto, Moderator
State Wildlife Action Plans: How you can help implement these comprehensive plans through your work	Emily Brinkhurst NH Fish and Game
2) Representatives from various states will summarize and discuss the following: their state's approach to identifying and protecting biolo high quality waters; what protections these waters are afforded; and effectiveness of each approach. Open discussion will ensue.	gically
Stream Geomorphic Assessment	Somerset West Mike Kline, Moderator
Changes in Stream Sediment Regimes and their Aquatic Ecosystem     River Management Implications	a and Mike Kline  VTDEC River Managment  Program
2) The New VT ANR Rapid Habitat Assessment: Linking Physical Pto Aquatic Habitat in Different Stream Types	rocesses Roy Schiff <i>MMI</i>
3) Exploring scale dependent responses to urbanization	Evan P. Fitzgerald University of Vermont
10:00 AM - 10:20 AM	

10:	10:20 AM - 12:00 PM			
	dressing the Need for Taxonomic Data Consistency: Formation of a w England Association of Taxonomists	Raponda West Gary Lester, Moderator		
1)	Addressing the Need for Taxonomic Data Consistency: Formation of a New England Association of Taxonomists	Gary T. Lester EcoAnalysts, Inc.		
Par	nel Discussion - Chloride	Somerset West Angela Shambaugh, Moderator		
	Chloride panel discussion will address State's current "chloride" water quality standards, surface and ground water data and regulations to address chloride exceedances.	Angela Shambaugh - Discussion Facilitator		
Sur	veying the Nation's Rivers	<b>Raponda Central</b> <i>Dave Neils, Moderator</i>		
1)	Impact of Stormwater Discharges on Streams	Rosemary Gatter-Evarts  CT DEP		
2)	Development of a Fish Assemblage Assessment Index for Non-Wadeable Large Rivers in Maine and New England: 2002-2006	Chris Yoder Midwest Biodiversity Institute		